Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Revisions to Parts 2 and 25 of the	)	
Commission's Rules to Govern the Use of	)	
Earth Stations Aboard Aircraft	)	IB Docket No. 12-376
Communicating with Fixed-Satellite	)	
Service Geostationary-Orbit Space Stations	)	
Operating in the 10.95-11.2 GHz, 11.45-	)	
11.7 GHz, 11.7-12.2 GHz and 14.0-14.5	)	
GHz Frequency Bands	)	

To: The Commission

COMMENTS OF PANASONIC AVIONICS CORPORATION

Panasonic Avionics Corporation ("Panasonic") respectfully submits these comments on the Notice of Proposed Rulemaking ("NPRM") accompanying the Commission's December 28, 2012 Report and Order authorizing earth stations aboard aircraft ("ESAA") as a mobile application in the Fixed-Satellite Service ("FSS").[1] Panasonic is the world's leading developer of in-flight entertainment and communications systems for commercial aircraft, and its Ku-band "eXConnect" ESAA system supports Internet access, real-time video content and other services to passengers and crew on board aircraft in-flight.[2]

---

[1] *In the Matter of Revisions to Parts 2 and 25 of the Commission's Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary-Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz Frequency Bands*, IB Docket No. 12-376, Notice of Proposed Rulemaking and Report and Order, FCC 12-161 (rel. Dec. 28, 2012) ("ESAA NPRM & Order").

[2] *Panasonic Avionics Corporation*, Order and Authorization, 26 FCC Rcd 12557 (Int'l Bur. and OET 2011) (granting blanket authority to Panasonic for domestic operation of aircraft earth stations in the Aeronautical Mobile Satellite Service ("AMSS")). *See also ESAA NPRM & Order*, ¶ 11 (noting the new name of AMSS is ESAA).

The Commission should designate ESAA as a primary application of the FSS in the 14.0-14.5 GHz (Earth-to-space) band as it has done for other mobile very small aperture terminal ("VSAT") applications in the Ku-band. Given the technical similarities of ESAA systems, earth stations on vessels ("ESVs") and vehicle-mounted earth stations ("VMESs"), a primary designation for ESAAs is necessary and appropriate to ensure regulatory parity. Additionally, co-primary status for all of these applications of the FSS is a critical component of the spectrum sharing regime contemplated by the Commission for the Ku-band.[3] Panasonic therefore supports the Commission's proposal to elevate ESAAs to primary status in the 14.0-14.5 GHz band.[4]

I. PRIMARY STATUS IS NECESSARY FOR REGULATORY PARITY

The technical and operational characteristics of Ku-band ESAAs warrant elevation of ESAA to primary status in the 14.0-14.5 GHz band. As the Commission noted in the ESAA NPRM & Order, ESAA systems are technically and operationally similar to Ku-band VSAT, ESV and VMES operations, which have primary status in the band. These technical similarities and use of FSS satellite capacity merit primary status for ESAAs as an application of the FSS.

The Commission has authorized on an *ad hoc* basis Ku-band mobile VSAT terminals to provide in-flight broadband connectivity since 2001. For more than a decade, these terminals have operated on a secondary basis in the 14.0-14.5 GHz band without causing interference to other users of the Ku-band. However, the existing secondary allocation of ESAAs results in less interference protection than similar Ku-band operations. This discrepancy unnecessarily requires ESAAs to prevent harmful interference to and accept interference from ESV, VMES and VSAT

---

[3] *See In the Matter of Expanding Access to Broadband and Encouraging Innovation through Establishment of an Air-Ground Mobile Broadband Secondary Service for Passengers Aboard Aircraft in the 14.0-14.5 GHz Band*, Notice of Proposed Rulemaking, GN Docket No. 13-114, RM-11640 (rel. May 9, 2013) ("AMS NPRM").

[4] *ESAA NPRM & Order*, ¶ 142.

operations. Disparate regulatory status is inappropriate for technically similar services operating on a "common or identical design,"[5] particularly where a decade of operational experience confirms the ability of ESAAs to share spectrum on a co-equal basis without interference implications or other adverse consequences.

Regulatory parity is appropriate for Ku-band VSAT networks and the mobile applications of FSS – ESAAs, ESVs and VMESs. All of these operations use the same uplink and downlink spectrum and communicate with Ku-band FSS satellite in the same way. Recognizing these technical and operational similarities, the Commission should adopt its proposal to elevate ESAAs to primary status in the 14.0-14.5 GHz band.

II. PRIMARY STATUS IS CRITICAL TO ANY FUTURE SPECTRUM SHARING REGIME CONTEMPLATED BY THE COMMISSION

The Commission should elevate ESAA to primary status in the Ku-band before adopting any new allocations in the band. In a separate proceeding, the Commission has proposed to adopt a new, secondary non-Federal aeronautical mobile service ("AMS") in the 14.0-14.5 GHz band.[6] In the AMS NPRM, the Commission appropriately referred to ESAA as an application of the FSS, which enjoys primary status in the band.[7] Furthermore, the Commission based its proposal for a new AMS allocation, at least in part, on the primary status of all Ku-band FSS satellite operations.[8]

Without commenting on the merits of the proposed AMS allocation or other issues raised in the AMS NPRM, it is clear that co-primary status for technically and operationally similar

---

[5] *ESAA NPRM & Order*, ¶ 41 (stating that "ESV, VMES, and ESAA are applications in the FSS, which enjoy primary status in the 14.0-14.5 GHz band").

[6] *See generally AMS NPRM.*

[7] *Id.* ¶ 32; *see also id.*, ¶ 37.

[8] *See id.* ¶¶ 4, 14-15, 32, 37, 49.

operations – including ESAAs and other Ku-band mobile VSAT operations – is a critical element of any future spectrum sharing regime in the 14.0-14.5 GHz band. Elevating ESAA to primary status as applications of the Ku-band FSS is an essential step before any additional uses of the band can be considered. Therefore, in addition to the fundamental need for regulatory parity among similar services, the potential for a new, secondary allocation in the band supports elevating ESAAs to primary status as an application of the FSS.

III. CONCLUSION

For the foregoing reasons, primary status of the Ku-band ESAA operations is necessary to ensure regulatory parity among similar satellite services and consistency with the Ku-band spectrum sharing regime contemplated by the Commission. Accordingly, the Commission should adopt its proposal to elevate ESAAs to primary status in the 14.0-14.5 GHz band as an application of the Ku-band FSS.

Respectfully submitted,

PANASONIC AVIONICS CORPORATION

/s/ Carlos M. Nalda

Carlos M. Nalda
Squire Sanders
1200 19th Street, NW
Suite 300
Washington, D.C. 20036
(202) 626-6600

Its Attorneys

May 22, 2013